ELSEVIER

Journal of Hydrology 233 (2000) 263

Journal of Hydrology

www.elsevier.com/locate/jhydrol

Contents of Volume 233

Vol. 233 Nos. 1–4 **JUNE 12 2000**

Research papers

An experience of modelling heat and water exchange at the land surface on a large river basin scale
Y.M. Gusev and O.N. Nasonova 1
Experimental examination of solute transport by surface runoff from low-angle slopes
R.S. Walton, R.E. Volker, K.L. Bristow and K.R.J. Smettem 19
Origin of the shallow groundwater system in the southern Voltaian Sedimentary Basin of Ghana: an isotopic approach
S.Y. Acheampong and J.W. Hess 37
Mechanisms of water storage and flow in the unsaturated zone of the Chalk aquifer
M. Price, R.G. Low and C. McCann 54
Numerical simulation of infiltration, evaporation and shallow groundwater levels with the Richards equation
J.C. van Dam and R.A. Feddes 72
Regionalization of extreme precipitation distribution using the principal components of the topographical environment
G. Wotling, Ch. Bouvier, J. Danloux and J.-M. Fritsch 86
Peakflow responses to forest practices in the western cascades of Oregon, USA
R.L. Beschta, M.R. Pyles, A.E. Skaugset and C.G. Surfleet 102
Catchment-scale simulation of stream water chemistry by spatial mixing: theory and application
D.M. Cooper, A. Jenkins, R. Skeffington and B. Gannon 121
River flow prediction using artificial neural networks: generalisation beyond the calibration range
C.E. Imrie, S. Durucan and A. Korre 138
Error in a USGS 30-meter digital elevation model and its impact on terrain modeling
K.W. Holmes, O.A. Chadwick and P.C. Kyriakidis 154
Age and recharge pattern of water in the Oligocene of the Mazovian basin (Poland) as indicated by environmental tracers
A. Zuber, S.M. Weise, K. Osenbrück, H. Pajnowska and J. Grabczak 174
Compound intensity/duration/frequency-relationships of extreme precipitation for two seasons and two storm types
P. Willems 189
The role of soil pipes as a slope runoff mechanism, Subarctic Yukon, Canada
S.K. Carey and M.-K. Woo 206
Field and modeling evidence for a "stagnant flow" zone in the upper meter of sandy phreatic aquifers
M.C. Ryan, K.T.B. MacQuarrie, J. Harman and J. McLellan 223
Contribution of groundwater and overland flows to storm flow generation in a cultivated Mediterranean catchment. Quantification by natural chemical tracing
O. Ribolzi, P. Andrieux, V. Valles, R. Bouzigues, T. Bariac and M. Voltz 241

Technical note

A systematic over-estimation of flows
B. Yu 258
Contents of Volume 233 263